

Water Operators Partnership

## Terms of Reference

for developing and implementing

WOP2 training methodology and curriculum for DWASA



March 2019



18 March 2019

WOP2 invites proposals from interested consultants, organizations or firms to **develop and implement a training methodology and curriculum** under the Water Operators Partnership 2 between DWASA and VEI.

Interested parties are requested to carefully read the Background Information and Terms of Reference in this document and **submit a technical and financial proposal by e-mail to [boudewijn.sterk@vei.nl](mailto:boudewijn.sterk@vei.nl) before 7 April 2019, 4PM (Bangladesh Standard Time).**

## Part 1: Background information

### I. VEI

Established in 2004 by Dutch water operators, VEI has developed into an effective organisation with a stable annual turnover of € 20 million that is engaged in the implementing Water Operator Partnerships (WOP) with dozens of water operators over more than 20 countries worldwide, capacitating hundreds of employees from water utilities, and providing over 300,000 people with improved access to water services, mostly from low-income areas in Africa, Asia en South America.

WOPs are peer support partnerships between water and sanitation utilities aiming to share knowledge and skills to make utilities stronger, healthier and more resilient. WOPs work through peer-to-peer exchange of skills, knowledge and goodwill to build the capacity of a utility that demands for assistance or guidance.

#### **VEI equals Water Operator Partnerships**

VEI is the world's leading promotor and implementor of WOPs. WOPs of VEI focus on building the resident capacity of water operator staff, rather than 'doing it for them.' VEI arranges on the spot assistance by deploying water operator experts to their colleague local water operator. Their job is to effectively support and train their colleagues on site at the demanding water operators. This peer-to-peer interaction ensures that knowledge and the wealth of operational expertise can be shared with water operators abroad. The results are impressive: tangible change, improved operational performance and, ultimately, universal and equitable access to safe and affordable drinking water for more people.

#### **World class – Dutch – water experience**

VEI is firmly rooted in the Dutch water sector. Five Dutch water operators (Vitens, Evides Waterbedrijf, WML, Waterbedrijf Groningen and Brabant Water) share their expertise internationally through VEI. With a joint workforce of 3,600 utility employees, a distribution network that extends for more than 102,700 kilometers, five million customer connections and an annual production capacity of 880 million m3 of tap water in the Netherlands, they have extensive and lasting experience that is worth sharing.

### II. Water Operators Partnership Bangladesh

The thought behind a Water Operators Partnership (WOP) is that water utilities can learn from more experienced colleagues. By setting up a WOP, two water companies can team up and learn, without having to wait for external organizations to establish contacts and develop projects. VEI and the recipient water company set objectives and jointly determine what will be required to achieve those objectives. A WOP means long-term support for 5 to 10 years. It is a partnership project. The partner

shares the costs, the risks, the successes and are here for many years. It takes time and patience and requires trust between the partners.

### **VEI's activities in Bangladesh**

VEI is active in Bangladesh's capital Dhaka through a WOP with Dhaka Water Supply and Sewerage Authority (DWASA) since 2012, with financial support from the Embassy of the Kingdom of the Netherlands. Between 2012 and 2017, the first WOP between VEI and DWASA aimed at improving management of distribution networks and district metered areas (DMA) by skilled caretakers, active leak detection and a Non-Revenue Water (NRW) reduction program and improving 24/7 monitoring and operational control of five project DMAs in DWASA's MODS zone 5

In 2017, DWASA, the Embassy of the Kingdom of the Netherlands and VEI started the second phase of their WOP project (WOP2), upscaling the activities implemented during WOP1 to three other MODS zones within Dhaka; zones 3, 4 and 10. With the Inception Phase completed by February 2018, the Implementation Phase of WOP2 started in March 2018, and has the following objectives:

### **III. Objectives of WOP2**

WOP2 will enhance DWASA's operations and performance by building on the lessons learned from WOP1 and replication of its success. Activities of WOP2 will focus on:

- (1) Enhancing Operational Management of Restructured DMA Networks
  - a. Assisting DWASA in replicating and rolling-out DMA management concepts in MODS zone 3, 4 and 10;
  - b. Supporting DWASA in replicating and rolling-out NRW management concepts from WOP1 in MODS zones 3, 4 and 10;
  - c. Assisting DWASA in preparing for the roll-out of a SCADA system by implementing (a) SCADA pilot(s) in MODS zones 3, 4 and 10.
- (2) Implementation of an Inter Zonal Benchmarking System for performance measurement and performance comparison
- (3) Provision of water services in Low Income Community (LIC) areas

Recently, DWASA and WOP2 jointly agreed to turn DMAs 1003 & 1004 into 'model DMAs'. The model DMA approach focuses on the automation of the DMAs for better performance, operation and maintenance, and consists of the integration of a SCADA system with the DMA, the integration of LICs with the DMA, and the installation of SMART meters.

## Part 2: Terms of Reference for developing and implementing a training methodology and curriculum for DWASA

### A. Goal of the WOP2 Training Strategy

The goal of the WOP2 project is to transfer practical knowledge and skills in the field of water production and management from VEI's water utility experts to DWASA. To realize this knowledge transfer WOP2 has developed a 3-step training strategy (described in detail in Annex 1) which consists of:

- ✓ Phase 1. Foundation: Develop modules & Select trainers
- ✓ Phase 2. Co-teach: Teacher training & Co-teaching
- ✓ Phase 3. Take-over: Cementing the training strategy

### B. Objectives of the assignment

The objective of the WOP2 training strategy is to **develop a training curriculum for DWASA**, as well as **develop a pool of Master Trainers to implement the training curriculum within DWASA**. The training curriculum focuses on relevant knowledge and expertise around the process of production, distribution and consumption of drinking water. Based on a training needs assessment conducted within DWASA, WOP2 has identified four training topics for DWASA: (1) NRW Reduction, (2) DMA management, (3) SCADA and (4) Benchmarking.

At the time of publication of this TOR, the development of the training topic NRW reduction is completed, resulting in training curriculum '*Introduction to NRW and DMA management*'. Simultaneously WOP2 has trained 8 DWASA staff into Master Trainers, who are qualified to teach / implement this training module within DWASA. To develop the remaining 4 training topics into curricula, and to expand the pool of Master Trainers to include a total of 15 Master Trainers, WOP2 is recruiting a consultant.

The role of the consultant is to develop the remaining training curriculum, as well as the delivery approach for the training curriculum, both of which should be applicable and relevant to the cultural context of Bangladesh (***considering communication style, learning style, teaching methodology and translation of the training curriculum in Bangla***).

The objectives for this assignment consist of a total of five activities, which are outlined below and further detailed in the rest of this document:

- Activity 1: Develop training modules
- Activity 2: Evaluation of the implementation process of the training modules
- Activity 3: Training of Trainers
- Activity 4: Analyze and improve existing WOP2 training material for on-the-job learning and workshops
- Activity 5: Develop strategy for embedding WOP2 training material within DWASA

All above mentioned activities of the consultant should take place in accordance with the training goals and planning of WOP2 as mentioned in paragraph C. *Training Goals of WOP2*.

At the start of the assignment, WOP2 will provide the consultant with a detailed roadmap for the assignment which will include (i) a planning for developing 4 training modules, (ii) a planning for implementing 4 training modules, providing coaching to the Master Trainer during the training sessions, and (iii) a planning for training 15 Master Trainers and providing them with the opportunity to gain experience in teaching at least one training module each.

### C. Training goals of WOP2

The below schedule provides an overview of the training goals of WOP2 and the planning for 2019.

*Schedule 1: Overview of trainings goals and planning for WOP2*

Result ID	Training modules as per TOR	Status of training module	Total staff to be trained	Training sessions in 2019	Training sessions in 2020
<b>1a</b>	Introduction to NRW and DMA management	<u>Completed</u>	180	3 sessions Q2 3 sessions within Q3 and Q4	3 sessions within Q1 and Q2; 3 sessions within Q3 and Q4
<b>1b</b>	ToT - NRW Management	Completed	9	1 session in Q3 (combined with 4b) with 12 participants	
<b>2a</b>	DMA Management: the caretaker approach	To be developed	90	2 sessions within Q3 and Q4	t.b.d
<b>2b</b>	DMA Commissioning	To be developed	t.b.d (combined with DMA Management - the caretaker approach)	1 session within Q3 and Q4	t.b.d
<b>3a</b>	SCADA	To be developed	12	1 session in Q3 or Q4	t.b.d
<b>3b</b>	ToT – SCADA	To be developed	3	1 session in Q3 (combined with 1b) with 5 participants	
<b>4</b>	Benchmarking & data collection	To be developed	12	1 session in Q3 or Q4	t.b.d

## D. Expected deliverables of the assignment

The expected deliverables for this assignment consist of the following:

1. The development of training modules for 4 topics. These training modules will specify:
  - Content
  - The training sessions that WOP2 should provide
  - The most effective way to implement these training sessions
  - The resulting training material should include training programme, trainer notes, PowerPoints, handouts and implementation schedule of training days
  - The resulting training material should have a practical approach: the focus of the training should be on realizing improvement in the work of the DWASA MODS zone staff.
  
- A. DMA Management: The caretaker approach  
This module should cover the following themes:
  - Building a care taker team that is responsible for one DMA
  - How to organize maintenance and repair of pipelines and DMA equipment
  - Proactive leak detection and repair
  - Report about maintenance and repair
  
- B. DMA Commissioning  
This module should cover the following themes:
  - Steps in commissioning a DMA
  - Checklists for DMA commissioning by zone staff
  
- C. SCADA  
This module may have several (2-3) versions depending on the different target groups that need to be trained, and should cover the following themes:
  - Selecting a SCADA system
  - Installation of a SCADA system
  - Commissioning of a SCADA system
  - Maintenance of a SCADA system
  - Analyzing data provided by the SCADA system
  
- D. Benchmarking & data collection  
This module may have 2 versions depending on the different target groups that need to be trained, and should cover the following themes:
  - Data collection
    - o How to collect data to monitor indicators
    - o The importance of good data
  - Performance indicators
  - Awareness of employee's contribution to performance
  - Building a benchmark committee to embed benchmarking in the organization
  
2. The development of a pool of Master Trainers, consisting of 15 DWASA staff (8 Master Trainers have already been trained).
  - At the end of the training, the Master Trainers will be able to:
    - a. Prepare the necessary training materials for training of relevant DWASA staff
    - b. Teach the WOP2 training modules in front of a class of DWASA students, as prepared and facilitated by WOP2

3. Strategic plan for the establishment of a Dhaka WASA training institute that incorporates the newly developed training modules with the mission and vision of DWASA
4. An Evaluation report on
  - a. Activity 1: Develop training modules
  - b. Activity 2: Evaluation of the implementation process of the training modules
  - c. Activity 3: Training of Trainers

## E. Description of the activities

### *Activity 1: Develop training modules*

In cooperation with WOP2, the Consultant will implement the following steps:

#### **Step 1 – develop draft training module**

- a. Develop the content of the training modules, using the pre-designed WOP2 training structure as outline<sup>1</sup>. The Consultant is responsible for the actual compiling of the training modules but will be supported in this by WOP2.
- b. Develop the training activities, including training material (handouts, PPTs, etc)
- c. Write-out of the trainer notes

#### **Step 2 – discuss draft training module**

- a. Organize a workshop with DWASA trainers (Core Team) to discuss the draft training module
- b. Further build on the core team of DWASA staff who have previously reviewed the training material. Use this core team to continue with the workgroup approach in which the Consultant, DWASA engineer(s) and the DWASA Training Centre work as equal partners to discuss the training material and adapt it if desirable.

#### **Step 3 – collect feedback of content expert(s)**

- Discuss the draft with the content expert(s) of VEI and DWASA
- Implement the feedback of the content expert(s) and finalize the draft training module

#### **Step 4 – discuss final training module with trainers**

- a. Organize a workshop with the DWASA master trainers to go through the final training module

#### **Step 5 – implementation of training modules<sup>2</sup>**

- a. DWASA master trainers implement the training modules, teaching their colleagues in classes of 15 participants. The Consultant will provide coaching to Master Trainers during the training sessions.
- b. Coordinate with VEI content experts to supervise Master Trainers during training sessions

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<sup>1</sup> The WOP2 training structure includes a summary of training objectives and learning goals for each training module.

<sup>2</sup> For the implementation of the training modules (step 5), the consultant will work according to the training goals and training schedule of WOP2, which are detailed in in paragraph C. Training Goals of WOP2.

### *Activity 2: Evaluation of the implementation process of training modules*

- a. The Consultant will develop an M&E framework that the Consultant will use to monitor the impact and outcome of Activity 1, 2 and 3 and evaluate how the training process may be further improved
- b. The Consultant will develop an evidence-based M&E framework that consist of three dimensions:
  - Monitoring of the implementation roadmap
  - Evaluation of the effectiveness of the individual training modules (4 evaluations in total), focusing on the content, the methodology, the implementation by the Master Trainers and the reception by the trainees (DWASA staff).
  - Evaluation of the complete training process (holistic evaluation of the implementation of all the training modules) to measure the effectiveness of the knowledge transfer
- The Consultant will report to WOP2 (i) the effectiveness of the knowledge transfer, (ii) how well the Master Trainers are performing and (iii) DWASA's ability to imbed these activities within its daily operations.

### *Activity 3: Training of Trainers*

The Consultant will expand the existing pool of Master Trainers (currently 8) to include a total of 15 DWASA staff. The Consultant will capacitate these Master Trainers to guarantee that there are 15 qualified trainers available within DWASA who can implement the WOP2 training modules in front of a class of DWASA students, and in the future also conduct refresher trainings.

All these 15 Master Trainers will undergo an intensive ToT phase conducted by the Consultant. They will learn how to teach their respective training module, for which they will receive technical training from VEI content expert (or other experts) on the topic they are going to teach.

To ensure quality, the Consultant will guide and coach future Master Trainers throughout the process. The Consultant and WOP2 will engage the DWASA Training Centre in all facilitation activities, preparing the Training Centre to take over the WOP2 training responsibilities.

- a. The Consultant will expand the existing pool of 8 Master Trainers, establishing a total of 15 Master Trainers within DWASA (keeping in mind the necessary approval from DWASA management)
  - Start off by organizing a Master Trainer selection workshop (one day program)
  - Organize a Training of Trainers (ToT) session (three-day program), in which all 15 trainers are equipped with the skills and tools needed to implement the WOP2 training modules
  - Evaluate the ToT session and the results
- b. The Consultant will build upon the ToT training previously developed for WOP2, and further develop the communication, teaching methodology, didactics and participatory exercises (for a detailed description, refer to step 2 in Annex 1)
- c. The Consultant will provide training and follow up coaching to the pool of Master Trainers, according to the co-teaching methodology (described in detail in Annex 1):
  - Preparation: discuss and divide teaching content between teacher and co-teacher
  - Supervise the co-training for each of the 4 training modules



#### *Activity 4: Analyse and improve existing WOP2 training material*

- a. The Consultant will review the existing WOP2 training material (SOPs, checklists, videos) that is currently used for on-the-job training, and provide feedback on how to improve (taking into account content, presentation, training methodology, cultural communication, etc), and advise on improvements (where possible) using animations, videos, factsheets, etc.

#### *Activity 5: Develop strategy for embedding WOP2 training material within DWASA*

The long-term success of the WOP2 training program is highly dependent on the ability to create an enabling environment within DWASA. To realize an effective and efficient application of the WOP2 training approach, the middle- and high-level management need to acknowledge and provide resources for the DWASA staff to follow the training curriculum and to exercise the acquired knowledge and skills.

- a. The Consultant will implement a training trajectory for DWASA management that is aimed at creating a conducive environment for long-term implementation of training inside the DWASA organization;
  - This training trajectory should create understanding and support amongst the DWASA management for the implementation of the WOP2 training strategy (i.e. more awareness amongst management regarding the benefit of training and well-equipped staff members).
  - This training trajectory should positively impact DWASA’s understanding of the added value of training for the organization as a whole and employees as individual.
- b. The Consultant will organize (a number of) strategic workshops with DWASA, discussing the possibilities for embedding of WOP2 training material within the DWASA Training Centre;
  - The workshop(s) will stimulate DWASA management to identify ‘Champions’ and ‘Young Potentials’ from the DWASA employees, who can become trainers themselves and spread the knowledge and approach of WOP2 to allow for scale-up from inside DWASA.
  - The outcome of the workshops will be translated into a strategic plan that forms the roadmap for embedding the WOP2 training material inside Dhaka WASA’s aspiration to establish a regional training institute.
- c. Together with WOP2, the Consultant plans for the replication of the WOP2 Train-the-Trainer concept to other MODS zones of DWASA, in accordance with the strategy of the Asian Development Bank (DWSNIP project);
- d. The Consultant will finalize a training replication plan for the DWASA Training Centre, which will take the form of a report to be presented to the donor of WOP2. This plan includes an updated training schedule for DWASA employees.

#### **F. Collaboration with Dhaka WASA and Dhaka WASA training institute**

The success of the WOP2 training approach is based on creating ownership for training within DWASA. Therefore, the Consultant will engage the DWASA Training Centre in all training activities (development of the training curriculum and material, letting all training activities take place in the Training Centre), and develops the capacity of the Training Centre to take over the training responsibilities of WOP2. The Consultant will collaborate with content experts from VEI and DWASA to ensure better coordination and bring out lessons and good practices from existing technical knowledge. This can pave the way for scale up and sustainability with quality assured.

#### **G. Reporting structure**

The Consultant will hierarchically report to VEI’s Resident Project Manager.

## H. Budget and payment

A sub-consultancy agreement (FIDC-format) will be signed between WOP2 and the consultant. Consultants are requested to submit a financial proposal, not exceeding €100,000 (including AIT and VAT). The budget should include all relevant costs including professional fees, local transport and all other costs.

## I. Quality Standard

The consultant undertakes to perform the technical baseline study under the condition that the final product (deliverables) guarantee a sufficient quality standard – meaning it:

- meets the requirements of the Client
- covers the agreed project objectives
- is timebound and agrees with starting dates and deadlines
- delivers on all agreed outputs
- takes project risks into account and discusses these before executing
- puts risk management measures in place

## J. Timeline

	Proposal submission deadline	31 March 2019
Activity 1	Develop training modules	April until September 2019
Activity 2	Evaluation of the implementation process	April until December 2019
Activity 3	Training of Trainers	April until July 2019
Activity 4	Analyze and improve existing WOP2 training material	April until September 2019
Activity 5	Develop strategy for imbedding WOP2 training material	October until December 2019

Given the large scope of this assignment and the relative short timeframe (April to December 2019), the consultant should put emphasis on the providing dedicated support and developing a detailed planning to assure that all deliverables are met by December 2019.

## K. Proposal outline

Interested parties should submit, in English:

1. Technical proposal (maximum 10 pages, excluding annexes):
  - a. Understanding of the ToR
  - b. Relevant experience (outlining how the bidder meets the selection criteria)
  - c. Description of training methodology and approach to training
  - d. Work plan, detailing the planned activities and realization of the deliverables
  - e. Timeline
  - f. Proposed staffing; highlighting relevant experience and roles in the achievement of the assignment and clear indication of availability (in working days).
2. Itemised financial proposal (in Bangladeshi Taka, exchange rate of 1 EUR = 96 BDT), highlighting days per activity per consultant
3. Accompanying documents:
  - a. Names and contacts of 2 recent professional referees (previous clients) for whom similar work has been conducted.
  - b. Examples of similar pieces of work completed recently.
  - c. The CVs of proposed staff member (no more than 2 pages each)

## L. Required qualifications

Applicants may be individuals, groups of individuals with a designated team lead, or firms if they meet the following minimum requirements:

- Relevant degree in social sciences
- Profound understanding of the concepts of Benchmarking, DMA, NRW and SCADA
- Familiar with DWASA and organizational structure
- Experience in developing training modules for water utilities
- Experience in designing training methodology
- Experience in implementing trainings within the social & cultural context of Bangladesh
- Fluent in Bangla and English

## M. Selection process

Both the technical and the financial proposal will be evaluated, based on the evaluation criteria below. The selection process may involve interviews with applicants.

Proposal	Criteria	Score
Technical	Understanding of ToR	15
	Relevant experience	15
	Methodology	15
	Work plan & timeline	15
	Proposed staffing	15
Financial	Itemised financial proposal	25
<b>Total</b>		<b>100</b>

## N. Submission and contact

Queries related to the ToR may be directed at Mr. Boudewijn Sterk, Resident Program Manager, by email [boudewijn.sterk@vei.nl](mailto:boudewijn.sterk@vei.nl).

**The proposals should be submitted by e-mail to: [boudewijn.sterk@vei.nl](mailto:boudewijn.sterk@vei.nl), before 7 April 2019, 4pm (Bangladesh Standard Time).**

Organizations are requested to submit their proposal in English. Proposals that are incomplete or submitted after the given deadline will not be reviewed. WOP2 reserves the right to cancel or modify this Terms of Reference.

## ANNEX 1 - Training Strategy of WOP2

Training will be an integrated part of WOP2 implementation and it will enable staff of MODS 3, 4 and 10 to carry out the technical interventions related to DMA/NRW management, SCADA, interzonal benchmarking as well as provision of water services. WOP2 will apply a training strategy that is focused on the exchange of knowledge and best practices, to be achieved through peer-to-peer learning and the Train-the-Trainer concept.

### Train-the-trainer approach

To facilitate replication of best practices, WOP2 intends to use the train-the-trainer model, during which pre-selected staff of DWASA receive coaching and mentoring from experienced teachers to become a teacher themselves. The Train-the-Trainer program should be based on adult training principles, general training skills, practical and participatory training techniques and coaching. WOP2 has the ambition to embed the train-the-trainer model in the DWASA Training Centre in the long term, creating a cascade model of instructors. WOP2's approach for the implementation and subsequently rolling out the Train-the-Trainer model consists of three steps: foundation, co-teach, take-over.

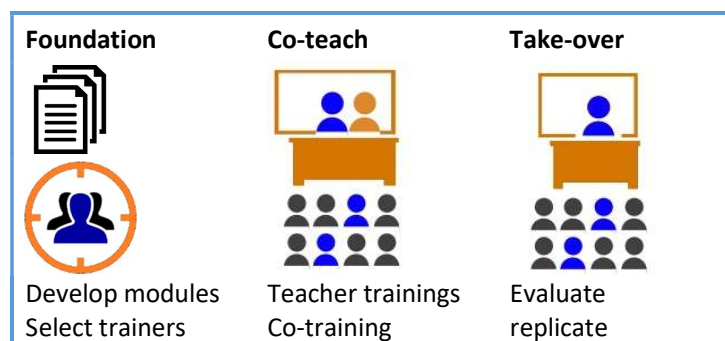


Figure 1: Train-the-Trainer model for WOP2

### Step 1. - Foundation: Develop modules & Select trainers

A thorough foundation, consisting of uniform training modules and selection of potential trainers, is a crucial component of the Train-the-Trainer model. Both the development of training modules by VEI experts and the selection of potential trainers will take significant time but are necessary investments to implement the train-the-trainer concept.

- Develop training modules

A training module is a package of training tools which together provides everything a trainer needs to conduct a training successfully. Training modules will be based on a template to ensure that developed trainings meet the learning style and needs of target groups, are uniform, and include participatory / interactive training techniques. A training module will consist of the following training tools:

- a 1-page overview of the training;
- the training implementation guidelines describing how the training program should be conducted;
- power point slides and handouts for the participants;
- the training content material, being a manual or Standard Operating Procedure (SOP).

Having access to standardized training material has multiple advantages. Firstly, training modules ensure that each training program is conducted in the same manner every time; in other words, consistency of training quality is secured. Secondly, having access to training modules reduces

preparation time for trainers. Thirdly, training modules ensure that trainers from outside conform to what is written in the module and do not run their own show.

In the end, the training modules developed under WOP2 will be a key asset for the DWASA Training Centre, and will allow the Training Centre to further expand its training services (as it will be responsible for all training post-WOP2 and post DWSNIP-CBS).

- Select potential trainers

WOP1 has not only resulted in vastly improved NRW reduction in 10 DMAs in MODS zone 5, but also left behind several staff members from MODS zone 5 who worked directly with the VEI experts and are skilled and experienced in various aspects of DMA management (10 staff), NRW reduction management (6 staff) and SCADA (3 staff). These experienced staff members are extremely suitable candidates for becoming the instructors of WOP2's train-the-trainer program. With a systematic approach to training, these instructors will enhance DWASA staff capacity, allowing for the build-up of in-house expertise.

However, the selection of potential trainers within DWASA should have a broad focus and look for skilled and experienced employees within all layers of the organization (MODS zones, Saiderbad Water Treatment Plant, Project Management Unit, etc). Such a selection process will require:

- determine a simple set of criteria to select potential trainers, focussing on level of competence in a specific theme (DMA management, NRW management, SCADA), level of communication skills and drive to bring innovations into drinking water management and into DWASA;
- together with mid-management and top-management, review staff members who participated in WOP1 and are likely to be qualified, interested and have the confidence to become trainer and coach for colleagues in the MODS Zone offices 3, 4, 10.;
- interview proposed candidates and make a final selection.

In order to train the future instructors required to start the train-the-trainer model, the WOP2 approach will be populated by utilizing the expertise that was built-up in MODS zone 5 under WOP1, and by utilizing the training expertise available at the Training Centre of DWASA. Initial instructors will be selected from MODS zone 5, but subsequently selection for additional instructors will come from other MODS zone offices and subsequently from the various organizational components of DWASA.

## **Step 2. - Co-teach: Teacher training & Co-teaching**

Once the foundation is in place, aspiring trainers of DWASA will receive coaching and training on technical knowledge and teaching skills and familiarize with the training module before conducting trainings in MODS zones 3, 4, and 10 together with the VEI expert.

- Excellent technical knowledge

All potential trainers should have excellent technical knowledge on the content of at least one of the training modules of WOP2. Therefore, WOP2 will make use of the VEI Short Term Experts to instruct the specific training module to the selected trainers. This will serve two purposes: (1) it will refresh the technical knowledge the trainer has on the subject, and (2) it allows for the training module to be adjusted according to the feedback of the trainer

As part of the implementation of the WOP2 project, VEI regularly sends water experts from the Netherlands (so called 'short-term experts', or 'STEs') to the Dhaka project office on a regular basis to assist the WOP2 project. The specific knowledge and expertise that the STEs possess can be utilized in developing the skills and expertise of DWASA staff to become trainers in WOP2 related training topics. To realize effective knowledge transfer, the VEI STEs will need coaching and training (teacher training).

– Teacher training

Apart from technical knowledge, the potential trainers should also have good communication skills and a drive to bring innovations to DWASA. All selected trainers from DWASA will have the opportunity to enhance their teaching skills as they will receive training on adult training principles, general training skills and practical and participatory training techniques. VEI STEs will also receive teacher training, to allow them to guide the DWASA trainers to dissect, analyse and get familiarized with the developed training module, its structure and the applied learning methods and hence put acquired training knowledge and skills into practice.

– Co-teaching

The WOP2 trainings to DWASA staff will be conducted by DWASA trainers, together with the relevant VEI STE (depending on the training subject). Prior to training the staff of MODS zones 3,4 and 10, teacher (VEI STE) and co-teacher (DWASA trainer) will need to discuss and divide teaching content. It is suggested that for the first set of trainings, theory will be taught by the VEI STEs while DWASA trainers will go into depth translating theory into practice. It is highly recommended to design participatory exercises based on the WOP1 training experience of MODS zone 5.

**Step 3. - Take-over**

The DWASA Training Centre (TC) is to play an important role in facilitating the skills development of the DWASA staff involved in WOP2 (staff of MODS zones 3, 4 and 10). DWASA's management envisions that in the future all DWASA staff training will be conducted by the TC internally; a pivotal role for the TC, making it responsible for organizing all future training programs.

The TC divides its training management tasks between internal and external trainer resources, which is the most realistic mode of operation at the moment. However, a few revisions should be considered given the vision of DWASA management that the TC is to facilitate all necessary DWASA trainings. The vision for the near future is to develop the TC into a national drinking water training institute, becoming the focal point for all national (and potentially international) staff training programs.

To realize the new responsibilities of the TC, WOP2 proposes the following modifications:

- I. It would be beneficial to the quality of training programs conducted through the TC that its staff members (Joined Chief Training Officers x2, Deputy Joined Chief Training Officers x3 and the Trainer Engineering) are qualified / educated in the training methodology developed for WOP2 (interactive and participatory training techniques). This will ensure that the TC's training programs have a practical focus and are conducted in an interactive way.
- II. Depending on the level of hands-on field experience, the TC staff members can also be trained as instructors on the WOP2 training modules and join the WOP2 Train-the-Trainer program.

After the first year of implementation, the progress and results of the Train-the-Trainer approach will be evaluated, with a specific focus on:

- Foundation (develop training modules & and select trainers)
- Co-teach (teacher training & co-teaching)
- The role of the DWASA Training Centre

The outcome will be evaluated with DWASA management to prepare recommendations for replication in the second year (2<sup>nd</sup> training cycle). Based on the findings a plan will be made to replicate the Train-the-Trainer concept to other MODS zones. Qualified and motivated instructors from DWASA will have a larger role in new trainings, possibly taking-over the teacher-trainings and the selection of new potential trainers.